

PREDICTIVE POLICING

## Presenter

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**Ryan Coonerty**

*Director of Gov't Relations & Strategy, PredPol*  
[ryan@predpol.com](mailto:ryan@predpol.com)

# PredPol

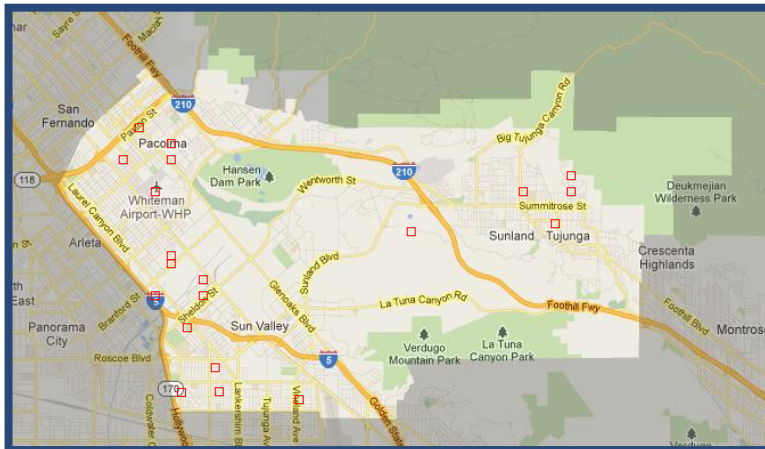
Predict Crime in Real Time™  
March 2013

# Predictive Policing is...

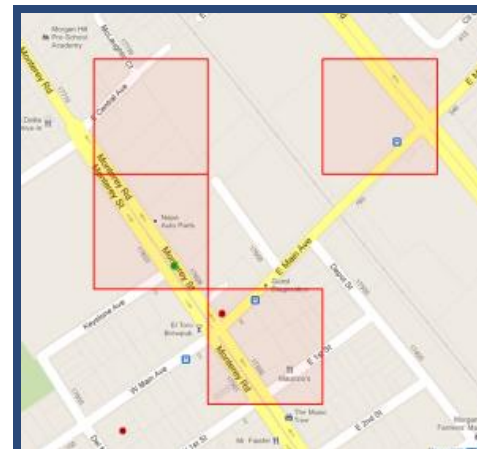
- **Software technology** that predicts the time and place of future crimes
- **High level mathematics** combined with experienced crime analysts and veteran police using their own knowledge and experience
- **More than “rear view mirror” policing** that simply maps past crime

# Deployment to Officers in the Field

- **Lists of Maps** of predictions in 500' x 500' boxes
- **Distributed** at start of shift or on-demand
- **'Get in the Box'** to disrupt crime during patrols



LAPD Foothill Division Deployment  
starting 7 Nov 11



Santa Cruz PD Deployment  
starting 1 Jul 11

# Predictive Policing in Santa Cruz, CA

**B4 THURSDAY, JUNE 21, 2012**

SANTA CRUZ

## Pair arrested with burglary tools

A man and a woman were arrested Wednesday morning after police found them snooping around parked cars.

About 12:50 a.m., an officer in a patrol car went to Maple and Washington streets on a predictive policing check, said Santa Cruz police spokesman Zach Friend.

The officer spotted a man and a woman in an apartment complex parking lot.

according to  
Hernandez  
in jail Wednesday

WATSONVILLE

## Teens arrested in vand

Two 15-year-old  
14-year-old  
Monday at  
\$10,000 in  
bowling al

About 6  
mer Cabrera  
Auto Cen



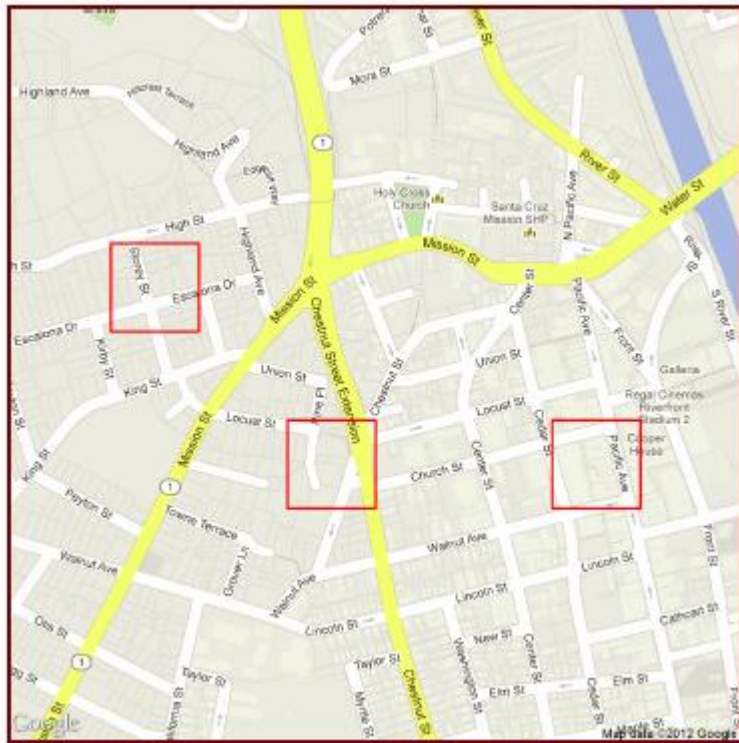
*A man and a woman were arrested... on a predictive policing check.*

Zach Friend

Santa Cruz Police spokesman

Thursday, June 21, 2012

# Predictive Policing in Santa Cruz, CA

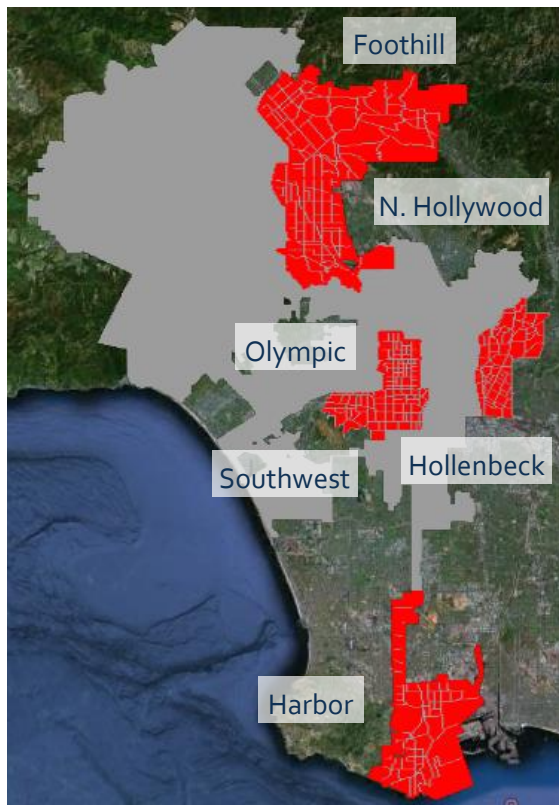


▼ 19%

**Santa Cruz burglaries**  
1<sup>st</sup> half 2011 vs. 1<sup>st</sup> half 2012



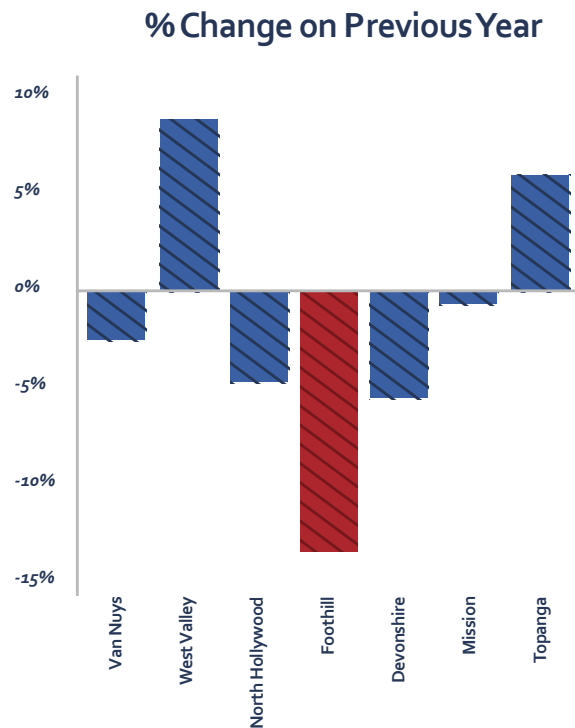
# Predictive Policing in Los Angeles, CA



*130 square miles*  
*1.3 million people*

# Predictive Policing in Los Angeles, CA

*How do we know it worked in LA?*



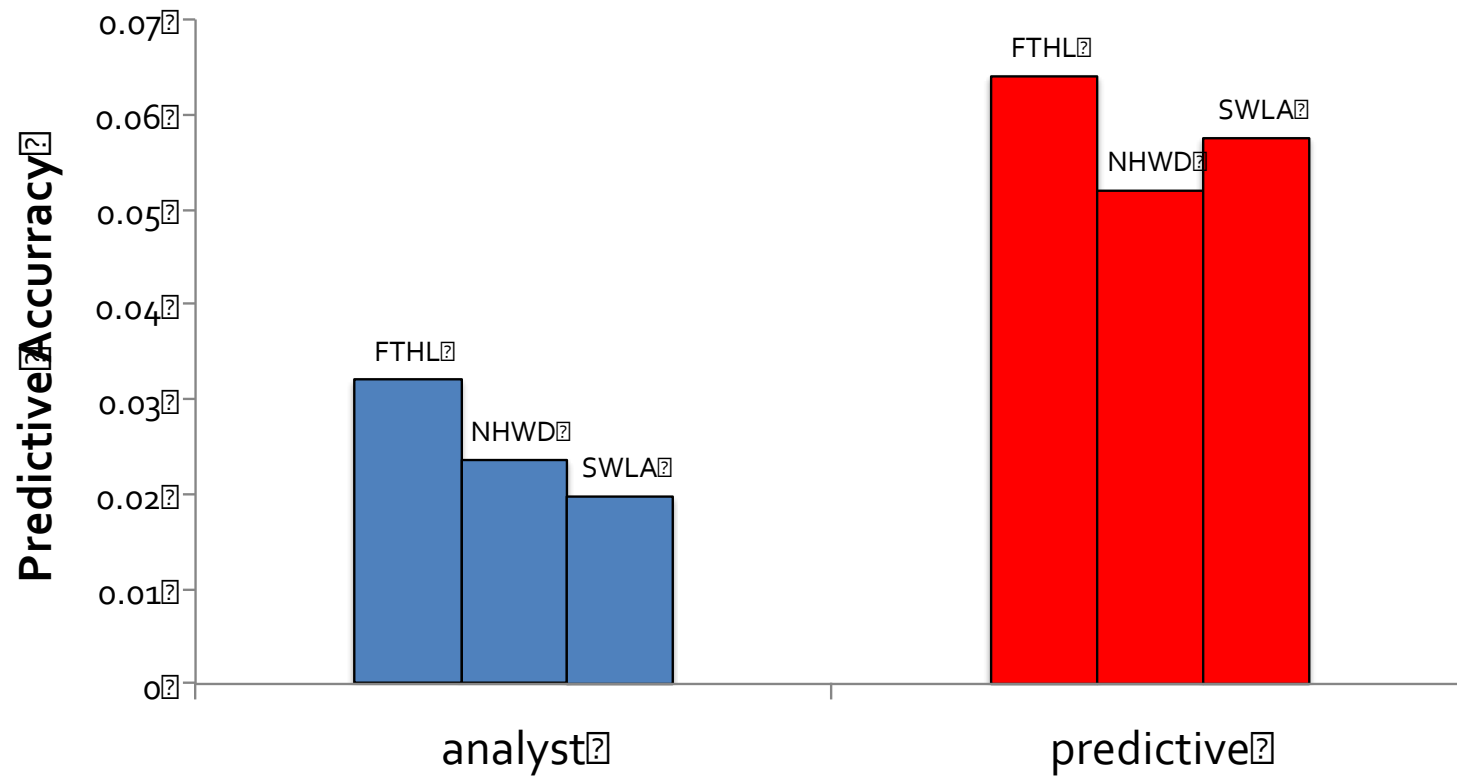
LA Foothill Division

▼ 12%

Rest of LA

▲ 0.4%

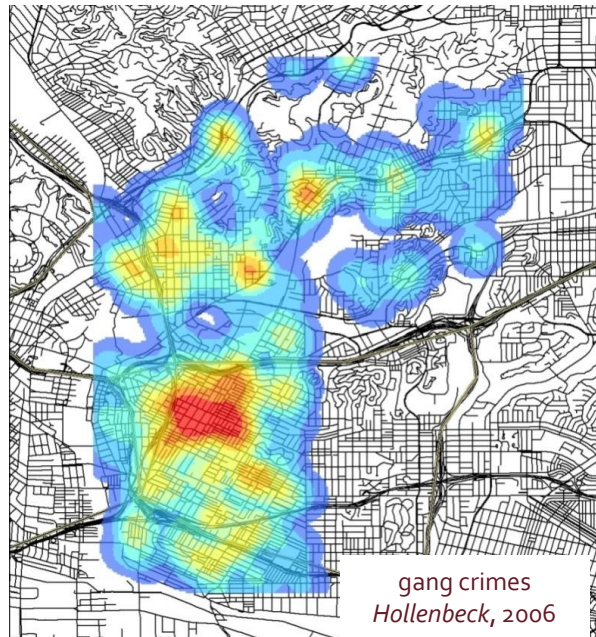
# LAPD Deployment





# Predictive Policing in Los Angeles, CA

*What's behind this technology?*

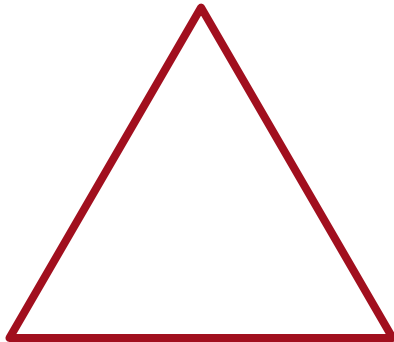


*I'm not going to get more money. I'm not going to get more cops. I have to be better at using what I have, and that's what predictive policing is about...*

Charlie Beck  
Los Angeles Police Chief  
CBS Evening News

# The Science

*repeat victimization*



*near-repeats*

*environment*

$$\frac{\partial B}{\partial t} = \frac{\eta D}{4} \nabla^2 B - \omega B + \theta \omega \delta$$

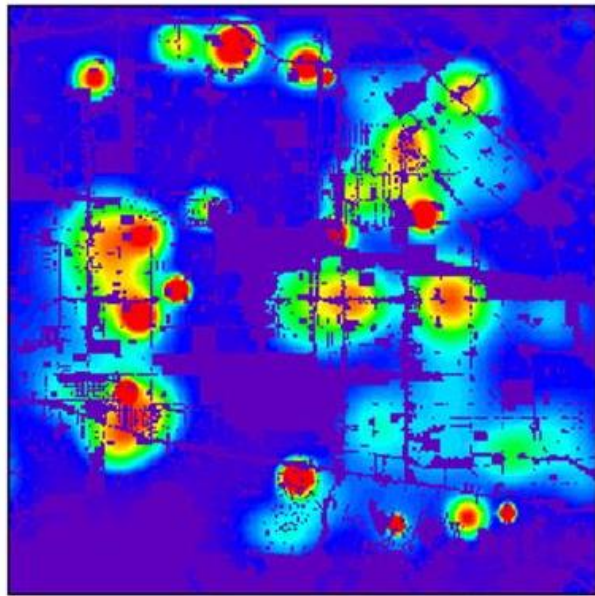
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offender behavior

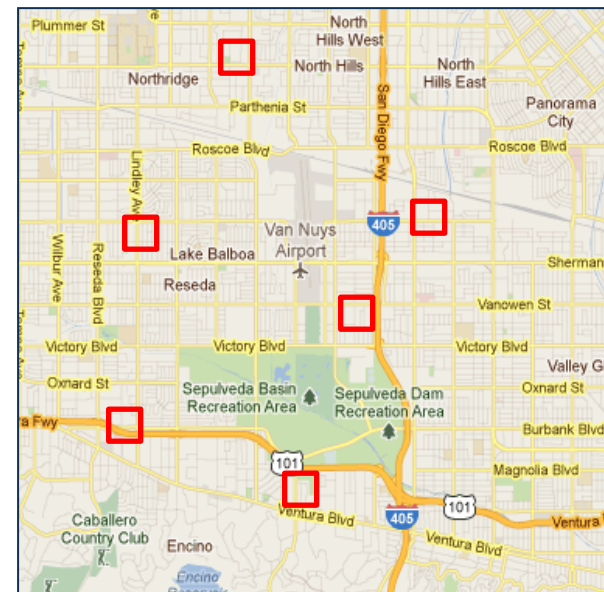
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mathematical model

# Making Predictive Policing Practical



tactical ambiguity

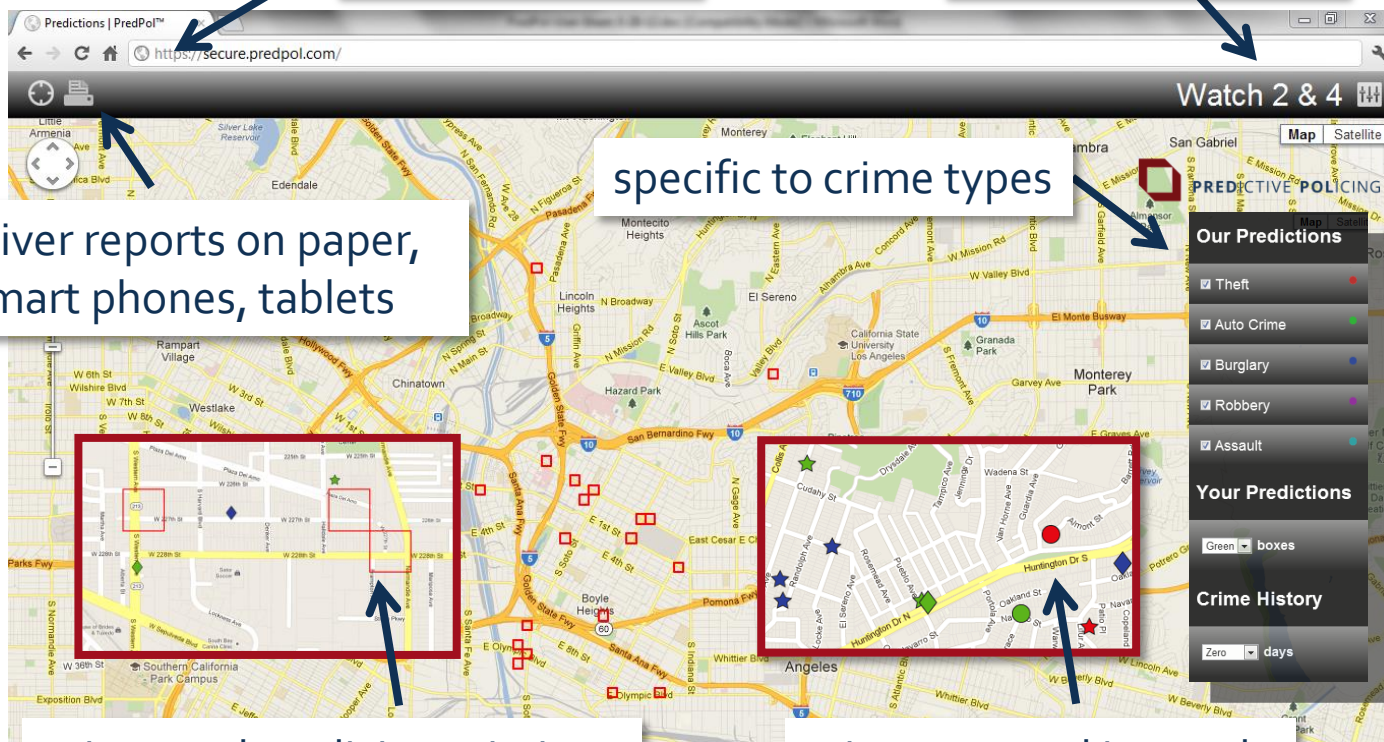


tactical clarity

# Day-to-Day Use

[https://secure....](https://secure.predpol.com/)

specific to shifts



specific to crime types

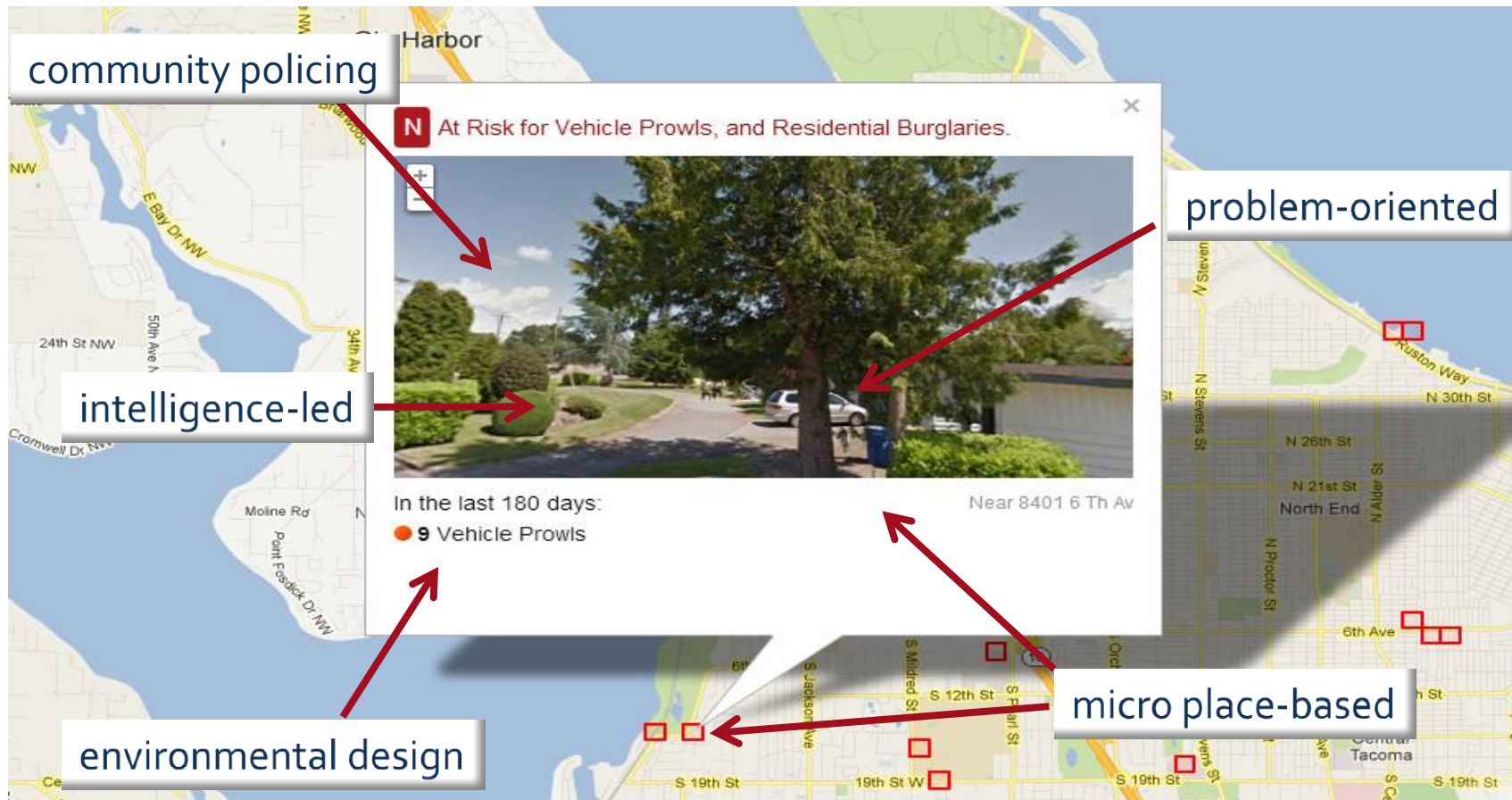
deliver reports on paper,  
smart phones, tablets

micro-scale policing missions

crime mapped instantly



# 'Get in the Box'





# PredPol Savings

▼ 12% → \$4 mil

Heaton, Paul. 2010. Hidden in Plain Sight: What Costs-of-Crime Research Can Tell Us About Investing in Police: RAND.

# PredPol

## is NOT

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- **A replacement** for knowledge, skills & experience
- **Profiling** of individuals
- **Probable cause**
- **New hardware** or **new hires**

## IS

- **More efficient & effective** policing
- **Assigning probabilities** of crime in space and time
- **Focal points** for effective use of police resources
- **Use of existing crime data**

# PredPol Deployments

## Current & Near Term Deployments

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- Los Angeles, CA
- Santa Cruz, CA
- Morgan Hill, CA
- Fairfield, CA
- Atlanta, GA
- Los Gatos/Campbell, CA
- Tacoma, WA
- Salinas, CA
- Alhambra, CA
- Lansing, MI
- Seattle, WA
- San Francisco, CA
- Elgin, IL
- UK, Mexico & Australia
- Columbia, SC
- Manhattan, KS
- San Jose, CA (traffic)
- Palo Alto/Mountain View, CA
- Milpitas, CA

# Overview

1. Discounted annual fee (unlimited usage)
2. No new hires & no new hardware while freeing up crime analysts to do more
3. Training for administrators and users at no extra cost. Fast and easy
4. Deploys in weeks (or sooner)
5. Predictions can be tailored to match a jurisdiction's service districts
6. Designed for agencies of all sizes.
7. Developing Gun Violence, Mobile, and Traffic Predictions
8. Eligible for JAG, DHS, and Asset Forfeiture Funding

# Press



**Associated Press:**  
Sci-fi policing: predicting  
crime before it occurs  
July 1, 2012



**Time Magazine:**  
Pre-emptive Policing  
November 28, 2011



**CBS: Evening News**  
"Predictive Policing"  
making LA safer  
April 11, 2012



**NBC: Nightly News**  
Santa Cruz PD's Predictive  
Policing Program  
August 22, 2011



**NY Times:**  
Sending the Police Before  
There's a Crime  
August 15, 2011



**ABC: World News Tonight**  
Santa Cruz Police Using  
Computer Program to  
Predict, Prevent Crime  
August 18, 2011





# PredPol

Predict Crime in Real Time™



Thank You!